

REMARKS

Favorable reconsideration of this application is requested in view of the following remarks. Claims 1-25 and 36-44 were previously withdrawn from further consideration; and claim 30 was previously canceled. Claims 1-29 and 31-44 are pending in this application. By this Amendment, claims 26 and 29 are amended.

In numbered paragraph 3, page 2 of the Office Action, independent claims 26 and 29, along with various dependent claims, were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,024,525 to Yamanaka, hereinafter *Yamanaka*, in view of U.S. Application Publication No. 2001/0019691 to Boss, hereinafter *Boss*. In numbered paragraph 4, page 5 of the Office Action, independent claim 29, along with various dependent claims, were rejected under 35 U.S.C. § 103(a) as being unpatentable over the *Yamanaka* patent and the *Boss* publication, and further in view of U.S. Patent No. 6,090,728 to Yenni, Jr. et al., hereinafter *Yenni*. In numbered paragraph 5, page 6 of the Office Action, dependent claims 32 and 33 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the *Yamanaka* patent in view of the *Boss* publication, and further in view of U.S. Application Publication No. 2002/0064437 to Kuramoto et al., hereinafter the *Kuramoto*.

Applicant has disclosed methods of binding an assembly of plural sheets to form a book-like structure. As exemplified in Figs. 3A-3D, in one exemplary method, a leading edge 328, 330 is adapted to contact a protruding end portion 308 of a backed hot melt adhesive sheet 302, and to redirect the protruding end portion 308 toward the plane surface 310 (e.g., paragraph [0036]). The leading edge 328, 330 of the clamping jaw 320 can be rounded, chamfered, equipped with guide elements or

otherwise suitably configured to contact and slide along the surface 332 of the protruding end portion 308 (e.g., paragraph [0036]).

The exemplary method 300 includes absorbing heat from a hot melt adhesive into at least a portion of the clamping jaw 320. Absorbing heat includes actively removing heat from the hot melt adhesive (e.g., paragraph [0038]). Absorbing heat solidifies or cures the hot melt adhesive of the backed hot melt adhesive sheet 302 (e.g., paragraph [0038]).

The foregoing features are broadly encompassed by claim 26. Claim 26 recites, among other features, actively withdrawing heat from the backed hot melt adhesive sheet to bring a temperature of a hot melt adhesive of the backed hot melt adhesive sheet from above a glass transition temperature of the hot melt adhesive to below the glass transition temperature of the hot melt adhesive, wherein at least the translatable first contacting surface has a leading edge adapted to contact a protruding end portion of the backed hot melt adhesive sheet.

On page 3 of the Office Action, the Examiner acknowledges that *Yamanaka* does not disclose an active cooling member within a clamping jaw. However, the Examiner relies on the heat sink 30 in *Boss* to assert that it was well known in the art to use active heat sinks to lower temperature, and that a skilled person would have found it obvious to make such a modification of the *Yamanaka* system to arrive at the claimed subject matter. Applicant has previously traversed this assertion.

Further, Applicant respectfully submit that *Yamanaka* and *Boss*, considered individually or in combination as suggested by the Examiner, would not have taught or suggested at least the claimed feature of actively withdrawing heat from the backed hot melt adhesive sheet to bring a temperature of a hot melt adhesive of the

backed hot melt adhesive sheet from above a glass transition temperature of the hot melt adhesive to below the glass transition temperature of the hot melt adhesive, wherein at least the translatable first contacting surface has a leading edge adapted to contact a protruding end portion of the backed hot melt adhesive sheet, as recited in claim 26. Rather, the side heaters 702, 703 as taught by the Yamanaka patent do not have a "leading edge", nor is there any suggestion of actively withdrawing heat from the backed hot melt adhesive sheet to bring a temperature of a hot melt adhesive of the backed hot melt adhesive sheet from above a glass transition temperature of the hot melt adhesive to below the glass transition temperature of the hot melt adhesive as Applicant has claimed.

As previously argued of record, one skilled in the art would not have been motivated to use the relatively large heat sink 30 in *Boss* to modify *Yamanaka*, because the large size of heat sink 30 would be detrimental to *Yamanaka*'s disclosed device. Further, the combination simply would not have resulted in the claimed feature of actively withdrawing heat from the backed hot melt adhesive sheet to bring a temperature of a hot melt adhesive of the backed hot melt adhesive sheet from above a glass transition temperature of the hot melt adhesive to below the glass transition temperature of the hot melt adhesive, wherein at least the translatable first contacting surface has a leading edge adapted to contact a protruding end portion of the backed hot melt adhesive sheet, as recited in claim 26.

For at least those reasons, Claim 26 is not obvious and is allowable. Dependent claims 27, 28, 32 and 33 are allowable at least by virtue of their dependence from Claim 26.

Claim 29 is rejected as being unpatentable over *Yamanaka* in view of *Boss* and further in view of *Yenni*. Claim 29 is also rejected as being unpatentable over *Yamanaka* in view of *Boss*.

Applicant has disclosed another exemplary method 400 which includes pivotably moving a first forming plate 414 and a second forming plate 416 about the assembly of plural sheets 406 from a first position to a second position such that the protruding end portion 408 of the backed hot melt adhesive sheet 402 is redirected toward the plane surface 410 of the at least one sheet 412 of the assembly of plural sheets 406 (e.g., paragraph [0046]).

The exemplary method 400 includes absorbing heat from a hot melt adhesive of the backed hot melt adhesive sheet 402 into at least a portion of at least one of the platen 422, the first forming plate 414, and the second forming plate 416 (e.g., paragraph [0049]). The portion can be any suitable portion, such as a heat sink 424. Absorbing heat includes actively removing heat from the hot melt adhesive. Absorbing heat solidifies or cures the hot melt adhesive 422 (e.g., paragraph [0049]).

The foregoing features are broadly encompassed by claim 29, which recites, among other features, actively absorbing heat from a hot melt adhesive of the backed hot melt adhesive sheet into at least a portion of the clamping jaw with an active heat sink, wherein the clamping bodies are pivotable.

As argued above, neither *Yamanaka* nor *Boss*, alone or in combination, disclose an active heat sink, in the context of Claims 26 or 29. Also, neither *Yenni* nor *Kiramoto* is relied upon for, or discloses, subject matter related to an active heat sink, wherein a hot melt adhesive of the backed hot melt adhesive sheet is softened prior to the sheet contacting the spine surface, a temperature of the hot melt

adhesive being raised above a glass transition temperature of the hot melt adhesive. Finally, the references that the Examiner relies upon, when considered individually or in combination, would not have taught or suggested clamping bodies that are pivotable, as recited in claim 29.

The Examiner has asserted on page 8 of the final Office Action, that "Yennie et al. is taken as exemplary in the bonding art of the term 'softening point' of a polymer as associated with its glass transition temperature above which the polymer becomes soft and pliable." Notwithstanding the Examiner's assertion, as previously argued of record, the Yenni, Jr. et al. patent still does not relate to an active heat sink; does not speak of a temperature of the hot melt adhesive being raised above a glass transition temperature of the hot melt adhesive; and simply would not have taught or suggested clamping bodies being pivotable. Accordingly, Applicant respectfully traverse the Examiner's ultimate conclusion.

Even if combined as the Examiner has suggested, the various combinations of *Yamanaka*, *Boss*, *Yenni*, and/or *Kuramoto* would not have taught or suggested at least the claimed features of 1) a temperature of the hot melt adhesive being raised above a glass transition temperature of the hot melt adhesive; 2) actively absorbing heat from a hot melt adhesive of the backed hot melt adhesive sheet into at least a portion of the clamping jaw with an active heat sink; wherein 3) the clamping bodies are pivotable.

For the foregoing reasons, claim 29 is also allowable. Dependent claims 31, 34 and 35 are allowable at least by virtue of their dependence from Claim 29.

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Respectfully submitted,

allowance and a Notice of Allowance is respectfully solicited.
addressed, it is respectfully submitted that the application is in condition for
All objections and rejections raised in the Office Action having been

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